

**ABSTRACT**

A modular board to board mezzanine ball grid array BGA connector includes a plug, a receptacle and if needed an adapter. The plug and the receptacle can be made form the same base pieces to accommodate different stack heights. If a greater stack  
5 height is needed, spacers can be used in the plug and the receptacle to accommodates a greater selected stack height. The plug and the receptacle both include a base having an interstitial diamond recesses in which the solder balls are disposed and in which one end of a contact is inserted. The plug may further include a plug cover that can be connected to the base, and the receptacle may include a receptacle cover that fits over its base. The plug  
10 can have a plug contact assembly, and the receptacle can have a receptacle contact assembly. The plug and the receptacle can be mated by mating the plug cover to the receptacle cover and the receptacle contacts to the plug contacts. If a larger stack height is desired, a spacer can be attached to the base of either or both the plug or the receptacle to achieve a larger stack height.

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